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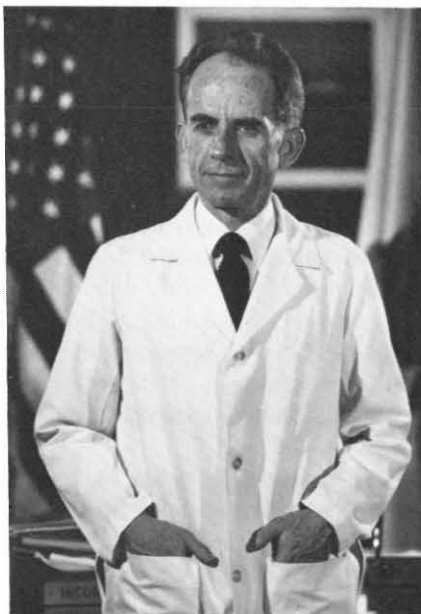
COVER: The USS *Grayback* (LPSS-574) is an amphibious transport submarine shown under way in the San Francisco Bay. Dr. Dembert, whose story begins on page 2, is the diving medical officer aboard the submarine.

From the Surgeon General

The Impaired Professional

The Joint Commission on the Accreditation of Hospitals discusses survey findings with the Command and Staff of our Naval Hospitals at the conclusion of biannual accreditation visits. There is always a pointed reference on the part of the JCAH reviewers that the Command certifies the physicians and staff as physically capable of delivering appropriate health care. The Command also certifies that the physicians and staff are *emotionally capable* to perform necessary functions within the medical facility reviewed—that if any staff professional suffers from alcoholism or drug dependency, they are under treatment.

The former Director of the National Institute of Alcohol Abuse and Alcoholism, Dr. Morris E. Chafetz, has stated that the incidence of alcoholism among the nation's physicians was one of the highest of any professional group. In the past six years there has been a five-fold increase nationally in the number of physicians disciplined for alcoholism. This is due in part to the JCAH requirement that hospital administrations certify the physical and emotional stability of their staffs. It has also been recognized



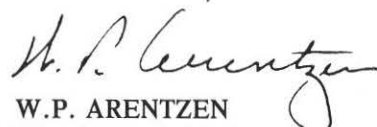
that it is both legally and morally incumbent upon professionals in the health care delivery system not to protect contemporaries or subordinates suffering from alcoholism, mental illness, or drug addiction. As a result, the number of identifications of impaired professionals has increased.

Our physicians, dentists, nurses, corpsmen, and other paraprofessionals within the medical community must provide something more to patients than technical expertise in the often imprecise science of medicine. Feeling and empathy are very much a part of what we must give. It becomes

difficult for the impaired professional to provide the requisite emotional support for the patient when he is personally suffering emotionally from the ravages of alcoholism, mental illness, or drug abuse.

I fully expect the commands and staffs of the Navy Medical Department to make every effort to assist the impaired professional, for the good of the patients as well as for the individual. By allowing these individuals to continue untreated, we are subjecting them to failure, frustration, and even death.

By identifying impaired professionals and referring them for appropriate therapy, we give them a chance to fully recover and return to normal living. It is incumbent upon all members of the Navy Medical Department, both officer and enlisted, to closely review their own lifestyle, particularly their drinking habits, and to introspectively determine the possibility of becoming an impaired professional.


W.P. ARENTZEN
Vice Admiral, Medical Corps
United States Navy

Department Rounds

Submarine Doctor: From Dancer to Diver and Lots More

Mark Dembert is not content with just the healing arts.

Besides being the diving medical officer aboard the USS *Grayback*, a diesel-powered submarine, he's an artist, singer, photographer, cartoonist, writer, researcher, poet, hard hat and scuba diver—and, yes, ballet dancer.

The Altoona, Pa., native is also the only doctor today riding a Navy submarine "fulltime."

"That's because *Grayback* has a contingent of special warfare divers, and I am their 'personal' diving physician," he explained in his clear baritone voice.

"I also have 25 other jobs," he mused with a grin, "which results from being the only diving medical officer in the Western Pacific."

Though it is not required, Dembert gives lectures in diving medicine to staff physicians at the Naval Regional Medical Center at Subic Bay and the Cubi Point Dispensary, and makes "house calls" on *Grayback* crewmembers' wives and children when he can. "I do it because I enjoy it. It's part of medicine," said the bespectacled Navy Lieutenant.

He added, "If only I had the time, I'd look into going on some missionary trips to the barrios around Subic Bay and offer my medical services."

Dembert entered the medical world in 1971 at Jefferson Medical

College in Philadelphia, Pa., after graduating from Bucknell University with honors in biology.

It was during his freshman year at Bucknell that Dembert bloomed in many directions.

He began with art.

"I started doing cartoons in high school for the Altoona High School newspaper. However, with college art courses at Bucknell, I began to experiment with new media," Dembert explained, "Pen-and-ink, pastels, charcoal, and water colors."

He "discovered" his best medium is pen-and-ink and his inclinations are towards caricatures of medical professors which were published in the Bucknell newspaper, "with some notoriety," chuckled Dembert.

He has also submitted his cartoons to the Philadelphia Inquirer, New Yorker, and Playboy. "Nothing was ever published though," said the son of Mr. and Mrs. Bernard and Estelle Dembert of Altoona, Pa. "But that didn't deter me. I plodded on and still do."

Dembert carries a little sketch book and a miniature water color kit with him whenever he travels.

In that busy freshman year, he began writing too, submitting poems and short stories to his college newspaper and other publications, like New Yorker and Yankee magazines.

Soon, he became editor of Bucknell's medical paper. "I turned it around so well that it was noted as best medical school newspaper in the country by the Student American Medical Association," said Dembert, trying not to boast too much.

His first claim to fame was when he wrote a lengthy article, "The Effects of Marijuana on Brain Metabolism," based on two years of biological mice research at Bucknell.

Later, when he attended Jefferson Medical College, he co-authored another piece, which was published in the New England Journal of Medicine. "It was, more or less, a tongue-in-cheek case study—more like a discovery—of Frisbee Fingers," he said.

Dembert's definition: The dilemma of persistent frisbee throwers . . . frisbee finger is seen as an abrasion of the middle finger of the throwing hand.

"If there's such a thing as tennis elbow, then there must be a phenomenon which can be called frisbee finger," Dembert laughed.

The loquacious Dembert elaborated, "That article really catapulted my friend, a doctor now, to national fame. There were about 50 radio interviews, live TV interviews with NBC and CBS. It was described in all types of news magazines from Medical Ethics Journal to Good

Housekeeping . . . and a mountain of letters from people all over the country. It was crazy.

"The biggest catch was when Esquire Magazine named me one of the winners of the 1976 Dubious Achievement Award for writing that article," said Dembert with a grin.

In his college days, he also took up guitar playing and singing, learning on his own, performing for friends at parties and at school concerts. His favorite songs are by Peter, Paul and Mary, and Simon and Garfunkel.

Then he heard about undersea medicine, submarines and the diving program of the Navy. Dembert signed up and upon graduating in 1975 was commissioned a lieutenant. After completing his internship at the Naval Regional Medical

Center Philadelphia, he began his six-month training at the Naval Undersea Medical Institute in New London, Conn., including training with helium-oxygen deep-sea diving rigs at Naval School of Diving and Salvage in Washington, D.C.

After this training, Dembert was immediately assigned as medical research officer at the Naval Submarine Medical Research Laboratory in New London, working on projects such as: submarine family psychiatry, "saturation" diving, the effects of "nitrogen narcosis" and diver performance, and a project evaluating hazardous diving and divers' health. From this work, Dembert authored several articles in the field of diving medicine.

"I am always looking into research as a side pursuit," said the

bearded Dembert.

Other side pursuits include ballet dancing and photography.

He took up ballet dancing two years ago in Philadelphia "on a dare from a friend's wife who teaches ballet. She didn't think I would do it, but I went ahead and joined her class, taking my lessons with 40 girls, whose ages ranged from 11 to 14," Dembert recalled.

Dembert describes ballet as "physical creativity at its best."

In photography Dembert leans towards black and white portraits of "friends I have known in Philadelphia and here in the Western Pacific."

Why all this activity? "I enjoy life. I look at it as a series of adventures, one after another. I might change into something else again," he explained.

"There's a good chance I might go into psychiatry someday, perhaps to combine psychiatry, with art as treatment."

That's still future tense though. Dembert wants his full concentration now on submarines and undersea medicine. "The Navy is giving me a good basic education, away from academics. That's a good thing—I am learning more," said Dembert.

"I enjoy the Navy," the 28-year-old bachelor continued, "for it's a challenge and adventure."

"I'll probably stay in as long as I can travel and enjoy my job. When that ceases, then I'll go into another phase. . . ."

That's LT Mark L. Dembert, MC, —always looking for something new.



Dr. Dembert receives a patient in his small clinic aboard USS Grayback.

—Story and photos by JOC Jesse B. Jose.

TEL-MED: Providing Health Care Information to the Community

All of us are aware of the current national emphasis on preventive medicine and the quest for improved methods to increase the health care awareness and medical knowledge of the public.

A recognized leader in the Navy Medical Department's campaign to improve patient education, CDR J.R. Erie, MSC, USN, Commanding Officer, Naval Hospital Quantico, has established the staff, organization, funding, and command support needed for a successful Health Education Program (HEP).

A segment of Quantico's HEP is the development and distribution of health care information (e.g., booklets, brochures, posters, newsletters, newspaper articles, etc.). It is within the scope of this segment that Tel-Med became a reality.

Tel-Med is in use at many civilian hospitals and clinics in the country. However, the significance of the program initiated at Quantico is threefold:

1. It is the first Tel-Med program purchased by a naval facility.
2. It is the first Tel-Med program in the Commonwealth of Virginia.
3. It is the first Tel-Med program jointly purchased and operated by a military and a civilian organization for the mutual benefit of both communities.

While assessing the Command's requirements for health education, it was apparent that the need to provide accurate, consistent telephone information for the public should be a high priority. An exorbitant amount of the clinic staff's time was spent in answering routine ques-

tions over the telephone. Information given was often incomplete or inaccurate. Tel-Med appeared to be the answer.

Since other facilities have shown interest in pursuing the establishment of a similar program, this article will describe the Tel-Med system and the steps involved in setting it up.

Tel-Med. Tel-Med is a telephone information system consisting of a tape library of over 300 medical topics. The tapes, of two to seven minutes duration, are designed to increase the public's awareness of good health habits and increase their understanding and ability to recognize particular illnesses or injuries.

The San Bernadino County Medical Society originated the tape library in 1972, aided by grants from the American Medical Association, the California Medical Association and the United States Department of Health, Education and Welfare. Tel-Med is a non-profit tax-exempt organization.

Production of the tapes is controlled by UCLA Hospital's physicians. There are six steps involved:

1. The initial script is written by a physician.
2. A telephone journalist translates each script into "telephone" English.
3. The physician reviews the "simplified telephone" version.
4. A team of physician specialists reviews each script.
5. A lay panel evaluates each script. If, as a panel, they have

more than one question, the script is rejected and a 42 member Medical Examining Committee of the San Bernadino County Medical Society revises it for resubmission to the lay panel.

6. A board of physicians chosen by the purchasing agency reviews and can revise the scripts to reflect local practice, if necessary.

Teletronix. The hardware designed to receive the calls is a semi-automatic, multichannel playback system manufactured and marketed by Teletronix Information Systems. The number of playback channels required is dependent on the population served.

The system works in a simple fashion: the patient placed an anonymous call (not collect) to one central number and requests the operator to play the tape number desired. The operator plays the tape, and the call is automatically discontinued on conclusion of the message.

Patients obtain the tape titles and numbers through printed brochures and other public advertisements.

Quantico - Potomac Program. Examination of the descriptive material provided by the sales representative confirmed the opinion that Tel-Med would be effective in providing health information to not only the military beneficiary population, but to the local civilian community as well. Potomac Hospital in Woodbridge, Va., agreed and the wheels were set in motion.

Numerous meetings between the sales representatives and officials of both hospitals were held to resolve such issues as, where to locate the

* "Tel-Med," Tel-Med Inc., Colton, Calif.

hardware; whether to use an answering service, volunteers, or staff members; how many lines would be needed; how many tapes should be included in the initial library; and, what kind of arrangements for cost sharing should be made. Care was taken to identify all the "hidden costs," such as installation fees and the cost of brochures and publicity (see Chart).

A tentative agreement for purchase was submitted to the Office of the Staff Judge Advocate and, after review and revision, signed by the Commanding Officer of Naval Hospital Quantico and the Administrator of Potomac Hospital.

A board of physicians and other health professionals from both hospitals reviewed the scripts and selected 150 to be purchased without revision, but with some reference information added. These

tapes were then ordered, along with 20 duplicate tapes on topics of high interest to be available for more than one caller.

The manufacturers of both the tapes and the equipment sent checklists to the program manager to assist in the coordination of the purchase, installation and implementation of the system. "Getting it all together" was analogous to preparing a seven-course meal and trying to put it all on the table at the right time.

The opening ceremony was planned to afford maximum publicity, with community and military leaders involved as much as possible. Packets for the press describing the system and press releases were prepared.

When opening day finally arrived on 16 Oct 1978, high visibility was essential to make more people

aware of the system and thus utilize it. Brochures were printed and distributed. Scouts and volunteer organizations participated in the distribution of the brochures. It was also helpful to have a local paper print the tape listing and numbers in advance of the opening.

However, publicity must be maintained for the continued success of the program. Television and radio public service announcements will be a source of publicity. Also, the telephone company may list the tape titles and numbers in the telephone book as a public service.

The Naval Hospital and Potomac Hospital Tel-Med program has been enthusiastically received by the community. Almost 12,000 calls were received during the first seven weeks of operation. Plans have been made to monitor the use of the system, review the tapes, purchase additional tapes, and identify problem areas. After one year of operation, the contract will be re-evaluated.

Some of the advantages of Tel-Med are:

1. It is free to the public.
2. It is convenient (almost everyone has a telephone).
3. It is always available. The Quantico-Potomac program is operational 24 hours, seven days a week.
4. The caller remains anonymous.
5. The information is consistent, concise, accurate, and periodically updated.
6. The system will remain in operation regardless of changes in staff or administration.

If anyone is interested in investigating the possibility of establishing their own Tel-Med system they are encouraged to contact the Education Officer at Quantico or Tel-Med Inc. of Colton, Calif.

—Prepared by LCDR Donna L. Munro, NC, USN, Naval Hospital, Quantico, Va. 22314.

COST LIST

Teletronix

- Equipment
- Shipment of equipment
- Installation and personnel training
- Expenses for Teletronix installer

Telephone Company

- Installation of telephone cable
- Monthly telephone fee

Tel-Med

- Original tapes
- Duplicate tapes (high usage topics)
- Tape shipment
- Program support fee (insurance, updating service, monthly newsletter)

Personnel

- Operators (answering service, staff, or volunteers)

Publicity

- Literature (newsletters, press packets, etc.)
- Brochures and posters
- Opening ceremony expenses

Notes & Announcements

In memoriam . . . CAPT Oscar H. Fulcher, MC, USN (Ret.), former Navy surgeon, and founder of the neurosurgery department at Georgetown University Medical School, died 22 Dec 1978, at age 77.

Born in Amherst County, Va., Dr. Fulcher received his B.A. degree from William and Mary College in 1922, and his M.D. at the University of Virginia in 1926. He interned in Seattle, Wash., and was a fellow in surgery at the Mayo Clinic from 1928 to 1933. During Dr. Fulcher's Navy career, he advanced to the rank of captain and for a time was stationed on Guadalcanal in the South Pacific. Dr. Fulcher joined the staff at Georgetown University in 1946 after World War II service as a Navy surgeon. He founded the neurosurgery department the same year and was its chairman until 1964, when he became a clinical professor at the school. He continued to teach until his death.

Dr. Fulcher was a member of the Medical Society of the District of Columbia, the American Medical Association, the Harvey Cushing Neurosurgical Society, the Philadelphia Neurosurgical Society (of which he was a past president and historian), and the Academy of Medicine of Washington. He held the Bronze Star and the Navy Commendation Medal.

Continuing education for Navy nurses . . . The Naval Health Sciences Education and Training Command will sponsor the following continuing education course for Navy nurses:

Behavioral Concepts of the Acutely Ill Patient (18 contact hours)
Bethesda, Md. 21-23 May 1979

This workshop will enable the participants to increase skills in intervening in the behavior of patients and their families as a result of the disease process and the hospital environment. The program will include a brief review of crisis theory and intervention, communication skills in the nursing interview, and the role of the Nurse in dealing with the dying patient and his family. A portion of time will focus on the critical care nurse in crisis.

The course is open to Nurse Corps officers not currently assigned to an overseas billet. However, nurses assigned to Argentina, Newfoundland; Bermuda; Guantanamo Bay, Cuba; Keflavik, Iceland; and Roosevelt Roads, Puerto Rico, who have served at least six months on active duty, may apply. The

course is also open on a space-available basis to Nurse Corps officers of the inactive Reserve.

Nurse Corps officers wishing to attend the course should apply to the Naval Health Sciences Education and Training Command (Code 7), National Naval Medical Center, Bethesda, Md. 20014, following procedures set forth in the BUMED Instruction 4651.1 series. Applications should be submitted four to six weeks before the course begins.

AFIP courses offered . . . The Armed Forces Institute of Pathology will offer the following courses:

Comparative Pathology 7-9 May 1979

The course is for scientists interested in the comparative pathologic aspects of disease in animals and man. It is specifically designed to bring attention to disease processes in animals in which a similar entity occurs in humans. Differences and similarities of lesions, as well as the biological behavior of specific entities, will be discussed. The pathologic entities presented will cover a wide variety of species including man, and will be compared by organ systems and to specific cause. This course will consist of lectures supported by illustrative material.

Applicants should be members of the Medical, Dental, Veterinary, Nurse, Medical Service, and Biomedical Science Corps of the Armed Forces.

Seminars in Diagnostic Radiology 7-11 May 1979

These seminars are designed to offer radiology practitioners a summary of the most important morphological principles that underlie the evaluation of roentgenologic signs. Materials have been carefully chosen to achieve maximum radiologic-pathologic correlation in the elucidation of disturbed morphology as seen on roentgenograms. An added feature of the course will be an emphasis on radiologic study and evaluation in oncology, with particular stress on differential diagnosis and detection.

Applicants should be members of the Medical Corps of the Armed Forces, other federal services, or civilians with specialty training radiology.

19th Annual AFIP Lectures 14-18 May 1979

This is a review and compilation of recent information in Anatomic Pathology (and clinical pathology methods as they apply to pathology) involving the various organs and body systems. The review will include common pitfalls in diagnosis, review of unusual cases, statistical data as appropriate, review of articles (published or to be published by staff members), and new histochemical, bacterio-

logical, biochemical, immunological, and toxicological methods in the daily practice of pathology. These sessions will provide the practicing pathologist with a combined period of instruction and review, and with concepts in pathologic anatomy as interpreted by the AFIP staff.

Applicants should be members of the Medical Corps of the Armed Forces or other federal services who are board eligible or certified in pathology.

Applications from qualified civilian personnel will be considered on a space-available basis.

Further information may be obtained by writing to the Director, Armed Forces Institute of Pathology, ATTN: AFIP/EDZ, Washington, D.C. 20306.

Thoracic surgery residency positions . . . The first-year positions of a two-year program are available for July 1979 in thoracic surgery at the Naval Hospital, San Diego, Calif. and the Naval Hospital, Bethesda, Md. These are accredited programs and offer a broad spectrum of training. For further information call: CAPT B.L. Aaron (San Diego), Commercial (714) 233-2365, Autovon 727-3850, Ext. 2365 or CAPT H.E. Ashworth (Bethesda), Commercial (202) 545-0074, Autovon 294-0074.

Psychiatry residency programs . . . There are a limited number of positions still available in the psychiatry residency program at National Naval Medical Center, Bethesda, Md. and Naval Regional Medical Center Portsmouth, Va. These positions are at the GME-2 year level and open in the summer of 1979. Applications are still being accepted. For further information contact: CAPT H. James T. Sears, MC, USN, Specialty Advisor for Psychiatry, NRMCP Portsmouth, Va. 23708. Telephone (804) 397-6541, Ext. 404.

New Orleans medical assembly . . . The 42nd annual New Orleans Graduate Medical Assembly will be held 27 April-1 May 1979 at the Fairmont, New Orleans, La. There will be a \$200 registration fee for nonmember physicians and \$100 fee for military personnel and registered nurses. No registration fee for students, residents, interns and fellows.

For complete details, write to: Oliver H. Dabezies, Jr., M.D., F.A.C.S., Rm. 1538, Tulane Medical Center, 1430 Tulane Ave., New Orleans, La. 70112. Telephone (504) 525-9930.

Scientific exhibit . . . The American Medical Association (AMA) periodically recognizes outstanding scientific exhibits that are displayed at their annual conventions. The Navy exhibit "Running Injuries—Diagnosis and Management" presented in the orthopedic surgery section at the 1978 meeting in St. Louis, Mo., has earned the AMA's Billings Bronze Medal for those Navy Medical Department personnel responsible for its preparation and presentation. Selection criteria considered in awarding the Billings Bronze Medal include the contribution to medicine, excellence of correlation of facts, and presentation. Recipients of the award are LCDR Wayne B. Leadbetter (MSC), CAPT B.K. Slemmons (MC), LT T.R. Wagner (MC), and CAPT E.S. Hockstein (MSC), National Naval Medical Center, Bethesda, Md. and CAPT J.S. Cox (MC), Naval Hospital, Annapolis, Md. Production of the BUMED-sponsored exhibit was accomplished by the Illustrations and Exhibits Division, Naval Health Sciences Education and Training Command, Bethesda, Md.

Erratum . . . In *US Nav Med* 70(1):20-21, Jan 1979, a list was published of new Medical Service Corps members and nominees of the American College of Hospital Administrators. Unfortunately, during the preparation of this article, the following individuals were inadvertently omitted:

Members

CDR George W. Baldauf, MSC, USN
LCDR David L. Vosloh, MSC, USN

Nominees

CAPT James I. Myers, MSC, USN
LCDR Ronald K. Green, MSC, USN
LCDR Douglas Suttle, MSC, USN
LCDR George A. Swales, MSC, USN
LCDR Ronald F. Turco, MSC, USN
LT Donald J. Lemmerman, MSC, USN

Instructions and Directives

Medical monitoring of flight personnel

Under modern operational concepts, aviation activities are deploying to remote shore bases and to ships that do not normally have medical officers trained in aviation medicine. In these instances, routine medical care may be given by primary care physicians or highly trained advanced hospital corpsmen.

The adverse effects of many self-prescribed "over the counter" medications, as well as many drugs dispensed by prescription, have long been recognized as detrimental to flight safety. Other complications unique to flying are inherent in many disease entities and treatment regimens.

It is necessary to ensure that all flight personnel engaged in flight operations are physically qualified. A commanding officer of a squadron or an officer in charge of an activity may relieve from flying duty any individual deemed physically unfit for such duty, upon the recommendation of a medical officer (not restricted to a flight surgeon), in accordance with MANMED art. 15-70, OPNAVINST 3710.7J, and BUMEDINST 1520.24. The commanding officer or officer in charge may authorize resumption of flying duty on the recommendation of a flight surgeon, an aviation medical examiner (AME), or an aviation medical officer (AVMO).

Scope of this instruction. The provisions of this instruction apply only to Medical Department personnel in those remote areas where the services of a flight surgeon, an AVME, or an AVMO are not available on a regular basis.

Policy. The authority to issue a Grounding Notice (Aero-Medical), (NAVMED 6410/1), recommendation to a commanding officer or an officer in charge is expanded, within the scope of this instruction, to include the appropriate Medical Department representative on independent duty—i.e., the advanced hospital corpsman—in addition to the medical officer.

The authority to issue a Clearance Notice (Aero-Medical), NAVMED 6410/2, prior to aircrew members' return to flight duty following grounding, is expanded, within the scope of this instruction, to include non-aviation-medicine-trained medical officers and other Medical Department personnel who meet the following criteria: NEC 8425 (advanced hospital corpsmen who have completed the basic or refresher course in aviation medicine at the San Diego or Portsmouth School of Health Sciences) or corpsmen trained as NEC 8406 (aerospace medicine technicians) or NEC 8409 (aerospace physiology technicians). In those instances where aircrew members are hospitalized or have been grounded for more than 10 days, they must be examined by a medical officer trained in aviation medicine prior to returning to duty involving flying.

Procedure. In all cases where a non-aviation-medicine-trained medical officer or a Medical Department representative issues a Clearance Notice to a commanding officer or an officer in charge, message or verbal concurrence must be obtained from a flight surgeon, an AVME, or an AVMO before the aircrew member resumes duty involving flying.

Under no circumstances will an aircrew member, while on medication, be issued a Clearance Notice without concurrence from a medical officer trained in aviation medicine. This concurrence will be accomplished in accordance with guidance provided by the appropriate aviation type commander medical officer or Marine aircraft wing medical officer.

Action. The Naval Health Sciences Education and Training Command is directed to incorporate basic aerospace medicine training into the curriculum for advanced hospital corpsmen and the refresher training provided prior to reporting to units with an aviation capability. This training shall encompass all aspects of aviation medicine and will not be restricted to helicopter operations.

The aviation type commander medical officers and Marine aircraft wing medical officers are directed to develop methods to assure that activity OIC's and appropriate medical officers and Medical Department representatives are briefed and knowledgeable in aviation medicine responsibilities prior to deployment. Of particular importance is establishment of channels of communication to facilitate concurrence prior to issue of a Clearance Notice recommending that aircrew personnel be returned to flying status.—BUMED Instruction 6410.5 of 8 Aug 1978.

Field Management of Male Urethritis

LCDR R.R. Hooper, MC, USNR

LCDR L.P. Watko, MSC, USN

This article is designed to review disease management for personnel working in isolated locations where laboratory facilities and referral capabilities are limited. It will be assumed that the Medical Department Representative (MDR) is capable of doing a Gram's stain and a urinalysis and has no ability to culture for *N. gonorrhea*.

Urethritis is an inflammation in the urethra, usually evidenced by frequency of urination, burning on urination (dysuria), or a urethral discharge.

When a patient comes to sick bay complaining of urethritis he should be asked if he has a discharge or "drip." Evidence of a discharge may be obtained by examining the shorts and the urethral opening. Have the patient strip the penis several times if no discharge is observed. When there is a discharge a specimen can be obtained by gently applying a microscope slide to some of the exudate at the end of the penis. If no discharge is evident a urethral specimen should be obtained by either inserting a sterile bacteriological loop (4 mm diameter) or a calcium alginate swab into the opening of the penis to a distance of 2-3 cm and rotating gently upon withdrawal. If using the loop, the collected material is combined with a drop of sterile water, mixed well on a clean glass microscope slide, and allowed to air-dry. If the swab is used, gently "roll" the material over the center of the microscope slide several times and air-dry. After gently heat fixing the air-dried specimen, perform the Gram's stain and observe under oil immersion magnification. The presence of gram-nega-

tive intracellular diplococci virtually assures the MDR that the patient has gonorrhea. Sometimes gram-negative diplococci are only visualized extracellularly by Gram's stain. About 20% of these individuals have gonorrhea. In this event the stain should be repeated and, if the same results occur, the person should be treated for gonorrhea. If the patient is not allergic to penicillin he should receive 4.8 million units of penicillin intramuscularly divided into two injection sites and 1 gm of probenecid by mouth. In the event of penicillin allergy the treatment is spectinomycin 2 gm intramuscularly.

If the Gram's stain is negative, but an average of more than four white blood cells (WBC's) are seen per high-power field, the patient is assumed to have nongonococcal urethritis (NGU). Nongonococcal urethritis, etiologically speaking, is a "waste basket" diagnosis which may include: infection by viral, parasitic, or bacterial agents; and allergic and traumatic irritation. However, it appears that the majority of NGU acquired in naval personnel is of an infectious nature and responds to tetracycline. The recommended course of treatment is 250 mg four times a day for at least ten days. Generally speaking, the longer the duration of treatment, the higher the cure rate and in some circumstances a 21-day course may be necessary. An alternate treatment for NGU is sulfisoxazole, 1 gm four times daily for 21 days.

When a patient who complains of urethritis has no evidence of urethral discharge and <4 WBC's were observed on the Gram's stain, a urinalysis should be performed. Ten cubic centimeters of voided urine is spun down in a centrifuge at 1500 rpm for ten minutes. The urine specimen preferably should be obtained after the patient has not voided for a period

From the Navy Environmental and Prevention Medicine Unit
No. 5, Naval Station, Box 143, San Diego, Calif. 92136.

of at least four to six hours, such as an early morning specimen. The supernatant is discarded and one drop of the sediment is placed onto a clean glass microscope slide, a cover slip is placed on the top, and examined under high dry magnification for the presence of WBC's. If on examination of at least five different fields, an average of more than ten WBC's are seen per field, the assumption can be made that the patient has NGU and tetracycline is the most appropriate treatment. When less than ten WBC's per high dry field are seen on the urine examination and symptoms continue, the urinalysis should be repeated at a later date. No antibiotic treatment is indicated in this situation.

When gonorrhea is diagnosed it is also necessary to interview the patient in order to locate and treat his sexual contacts. Blood should be obtained for a Rapid Plasma Reagin (RPR) test whenever a patient is seen with venereal disease. If spectinomycin is used because of allergy to penicillin, the MDR is obligated to repeat the RPR at monthly intervals for a period of three months.

Three to seven days following the diagnosis of either gonorrhea or NGU the patient should be re-examined for evidence of urethral discharge. If no discharge is observed, the MDR can assume that the patient has been cured with the provision that a culture be obtained at a future date, when resources are available. If the patient still has both a discharge and a positive Gram's stain he may have reacquired the infection or he may be a treatment failure. If reinfection is suspected, penicillin is the treatment of choice. If treatment failure is a probability, then spectinomycin should be used.

A final word of caution: The decisions and assumptions made in the preceding should only be used where culture facilities are not available and referral capability is not present. While a Gram's stain is usually a reliable method of diagnosis in male urethritis, it is not as sensitive as the urethral culture. Some individuals who are treated for NGU may in fact have undetected gonorrhea. The continuation of symptoms in any patient is an indication for referral as soon as possible.

DN Saves Choking Victim

DN Cheryl R. Redmond was recently awarded a Flag lifesaving letter of commendation from RADM Robert L. Baker, MC, USN, Commanding Officer, Naval Aerospace Regional Medical Center. The presentation was made by CAPT Thomas W. McKean, DC, USN, Commanding Officer of the Naval Regional Dental Center, Pensacola, Fla.

The commendation reads: "You are commended for your quick acting emergency treatment that resulted in the preservation of life."

While dining in the Pensacola Naval Air Station Enlisted Dining Hall, you witnessed SN Julio Gerna, a member of this command stationed at the Naval Aerospace and Regional Medical Center Branch Clinic, choking on a portion of food. Your quick assessment of the situation and decisive action in administering the 'Heimlich Maneuver' to clear the victim's throat was directly

responsible for saving his life."

The Heimlich Maneuver is accepted worldwide as the most effective first aid method of clearing an obstructed throat of a foreign ob-

ject. The technique is easily learned. If you are not already familiar with it, most emergency rooms and first aid courses would be able to provide quick instruction.



Left to right: SN Gerna, DN Redmond, and CAPT McKean

Scholars' Scuttlebutt

Summer Clerkships in Undersea Medicine

The Naval Submarine Medical Center (NSMC), Naval Submarine Medical Research Laboratory (NSMRL), and Naval Undersea Medicine Institute (NUMI), located at the Naval Submarine Base New London, Groton, Conn., offers a variety of clerkships providing training and experience in a broad range of activities related to Undersea Medicine. Undersea Medicine encompasses the fields of Submarine Medicine, Diving and Hyperbaric Medicine, and Radiation Health Protection.

Clerkships at NSMC are primarily clinical in nature and involve working with the men of the submarine service and their dependents. All of the major specialties and several subspecialties are represented on the hospital staff. Both inpatient and outpatient care are provided. Clinical clerkships at NSMC may be combined with academic and practical training and experience provided by the various activities in the area.

Clerkships at NSMRL provide an opportunity to participate in research in a wide variety of operational medical areas ranging from closed atmosphere systems to computer assisted diagnosis. Research clerkships at NSMRL may also be combined with academic and practical training in Undersea Medicine.

NUMI provides didactic training in the various aspects of Undersea Medicine and coordinates such practical experiences as submarine orientation, submarine escape training, hyperbaric chamber orientation, and Navy SCUBA diving. The one-week course "Introduction to Undersea Medicine" is offered to individuals in clinical and research clerkships. In addition, special courses in Submarine Medicine, Diving Medicine, and Radiation Health can be arranged.

Groton, Connecticut is on the southern New England coast convenient to beaches, Mystic Seaport, and Mystic Sealife Aquarium. It is midway between Boston and New York City with convenient transportation available.

Additional information may be obtained from:

Commanding Officer
Naval Submarine Medical Center
Naval Submarine Base New London
Groton, Conn. 06340
(203) 449-3261

Commanding Officer
Naval Submarine Medical Research Laboratory
Naval Submarine Base New London
Groton, Conn. 06340
(203) 449-3263

Officer in Charge
Naval Undersea Medical Institute
Naval Submarine Base New London
Groton, Conn. 06340
(203) 449-3260

Supervisory Program in Health Resources Management

A supervisory program in Health Resources Management is now available for master and senior chief hospital corpsmen and dental technicians.

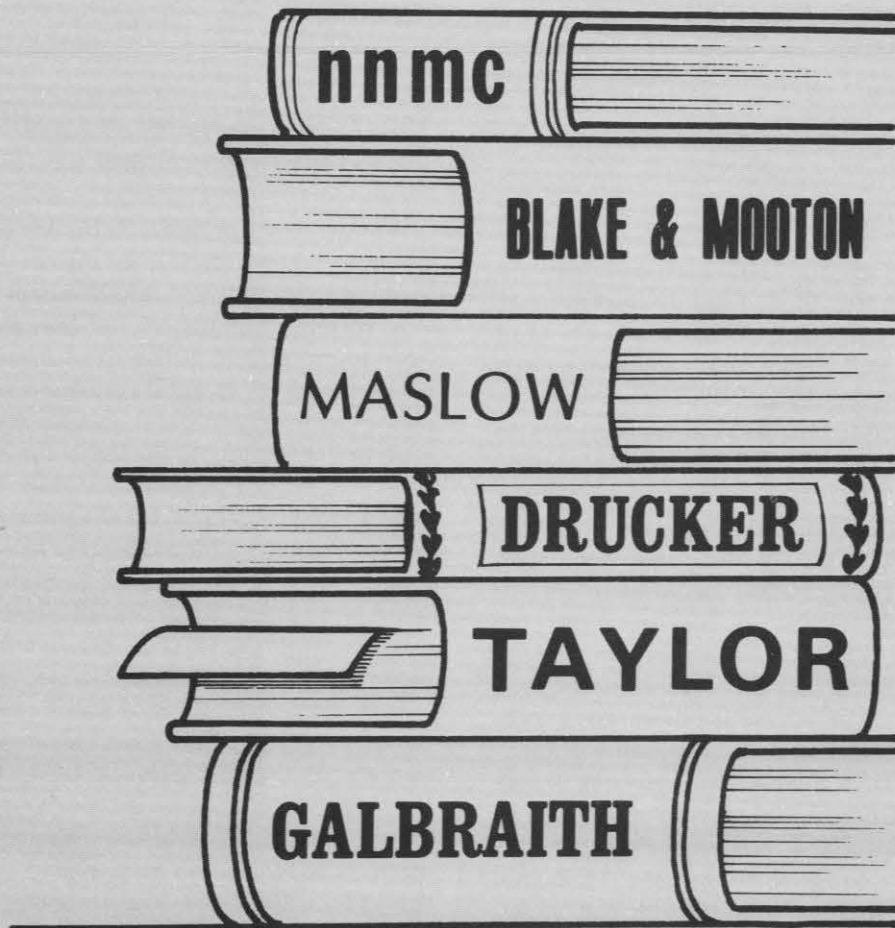
A specific initiative of the Surgeon General has been to more fully utilize the talents of the master and senior chief hospital corpsmen and dental technicians in management roles within the health care system. To better equip them for this, the Naval School of Health Sciences (NSHS), Bethesda, Md., has developed a four-week seminar program in Health Resources Management. This program is intended for and directed at preparing E-8/9's for roles often filled by junior Medical Service Corps officers. A maximum of 20 personnel can be accommodated at each session.

Individual medical centers will provide travel and per diem funding. The Naval Health Sciences Education and Training Command (HSETC) will provide housing. Student orders will be endorsed, "Government Housing Provided." Transportation from quarters to NSHS will be provided, messing will be the responsibility of each student; however, the mess at NNMCMC Bethesda will be available for noon meals during the week.

All nominations should be submitted no later than: 15 March 1979 for course dates 15 April-11 May 1979 and 9 June 1979 for course dates 9 July-3 Aug 1979. Nominations should be sent to Chief, Bureau of Medicine and Surgery (Code 25), Navy Department, Washington, D.C. 20372. Students will receive specific reporting instructions from HSETC upon acceptance.

The course curriculum and NRMC nomination list may be seen in BUMED Notice 1510 of 22 Jan 1979.

PERSPECTIVES IN MANAGEMENT



A SEMINAR
IN CONTINUING
EDUCATION

Team Approach Proves Effective for Human Relations Development

LT M.E. Celmer, MSC, USNR
LTJG M.M. McCarthy, MSC, USNR
LCDR D. Shepherd, MSC, USN
LT F.R. Tittmann, MSC, USN

For years, the study of human behavior in organizations has been of paramount importance to top management in its actions affecting corporate operation. Recently, the specialized discipline of Human Relations Development (HRD) has grown in response to the need for methods to augment employee performance and satisfaction. Tangible tools for management utilization (both military and civilian) have evolved from these studies both within and outside the health care industry. While most management specialists appear to agree that there is a necessity for an ongoing effort toward managerial HRD, differences do arise as to procedures for implementation. Foremost among these differences is whether to use in-house talent or to hire outside consultants. The purpose of this article is to present the format used for an "in-house" managerial seminar.

One Approach

At the National Naval Medical Center, Bethesda, Md., four Medical Service Corps officers received Command approval to attempt an

initial step toward the implementation of an HRD program "in-house." Investigation into current concepts in HRD had revealed a strong trend toward contracting out formal programs to commercial consultants for educating and re-educating the various levels of management. Such attempts, however, can be extremely expensive and they overlook the real economy to be realized by tapping the resources of in-house consultants. Inasmuch as dwindling assets for continuing education are appropriately channeled toward patient care education, utilization of resources within the medical center produced a management seminar which was available to the majority of local managerial personnel.

Format Selected

Once a commitment to the program was established there were several procedural questions which had to be resolved. Initially, it was necessary to determine the benefits of holding the seminar within the confines of the hospital as opposed to removing the participants from their daily environment and thereby

"retreating" the group. It was decided to select a location external to the medical center and yet accessible to it in the event attendees had to return to their offices. A second consideration was to whom the seminar should be opened. Adopting the rather uniformly accepted definition of "manager" as one who gets results through people, the organizers decided to invite all levels of the medical center's supervisors—from chief petty officers to the commanding officer. Civilian managers were also included. The question of choosing the material to be presented was resolved by having each team member select a relevant topic of personal preference, research it, and present it. The selected areas were time management, managing your natural resources, and boring meetings. Additionally, it was decided to present a panel discussion focused toward superior/subordinate-supervisor/supervisee roles and expectations.

From the National Naval Medical Center, Bethesda, Md. 20014.

Program Scope

The concept of time as the manager's most valuable resource was explored in an attempt to develop new behavior patterns which are sensitive to "time wasters" and which promote sound time utilization. As pointed out in *Managing Your Time* by Engstrom and Mackenzie the most important basic requirements are to prioritize one's activities, complete them in accordance with their relevance to the organization, and to finish one task before starting another. Utilization of such tools as a time log was recommended and participants were advised to conduct a realistic self-appraisal of their time utilization every 15 minutes for a week to determine just how their time was spent. From this they could determine their effectiveness with relation to the goals they had set. Mackenzie states in *The Time Trap* that working hard is not necessarily good time management—the effectiveness of a manager, not his efficiency, determines his success.

It was suggested that all managers create and use a formal "To Do" list. Such a plan allows one to organize his/her work day through setting priorities and following through—while blocking interruptions. The related benefits of handling paper once (or acting on a problem when you receive it), the utility of effective planning, and the negative consequences of procrastination were detailed. The concept of delegating responsibilities was described as vital to managerial success, and yet was identified as probably the most poorly effective of all tools.

The topic of managing your natural resources was selected for this seminar because of its broad interpretation and application in the

management arena. It was divided into two philosophical aspects: (A) managing yourself and (B) managing the problem employee. Part (A), was the more philosophical of the two in that it dealt with the concepts of the achievement-effective manager, management identification, and interpersonal awareness. Each of these three was broken down into additional component parts to include discussions on the manager's effectiveness, promotability, influence within the organization, attainment of power, political wiring, self-presentation, managerial introspection, and more. The overall intent of this section of managing your natural resources was to remind the participants that they, as managers, have a commitment to themselves, the organization and to their subordinates. The underlying premise was that one must be able to manage his own natural resources before he can hope to manage someone else's. The suggested way to accomplish this is through introspection and identification of one's effectiveness, achievement level, aspiration, and the modus operandi to reach his goals.

Part (B) of the topic covered not only the philosophical but also the practical side of managing the problem employee. The discussion included a formula for the identification of causes, changes, and conflicts resulting in problem behaviors and detecting those causes and changes and their subsequent resolution. There were many possible steps in each of the three stages, too lengthy to be discussed here. The intent of this approach was to remind and refresh the participants in the need for confronting and dealing with problem employees in a timely and realistic manner while encouraging the em-

ployee to understand that he or she has the responsibility to work out his or her own problems. The entire approach of managing one's natural resources stemmed from larger and broader seminars given by the well-known organizational psychologist, Mark Silber. Mark Silber gives management lectures annually at the American College of Hospital Administrators conventions as well as at numerous other management meetings and forums. The source of this topic was extrapolated from notes taken at Silber seminars.

Meetings

Any successful, nonboring meeting consists of adequate communication, practical organization, and appropriate follow-through. The topic on boring meetings was presented in two parts. Part one reviewed why most meetings are boring or nonproductive. Part two reviewed the practical management basics of chairing a good meeting. Subtopics consisted of types of meetings, purposes of meetings, alternatives to meetings, cost/benefits analysis, decision avoidance, roles of participants, group dynamics, and time management.

Since middle managers spend up 80% of their time at some sort of meeting, and boring meetings contribute to poor productivity and low morale, it was hoped that a review of the basic ingredients of successful meetings would be of value.

Panel Discussion

The theme for the afternoon panel discussion centered around working expectations: management and employee relationships. The panel was composed of five persons, both managers and employees. Two panel members represented the

management perspective (RADM J.T. Horgan, Commanding Officer and Mr. L. Christy, Head, Laundry Services), and two panel members represented the employee perspective (Mrs. Elizabeth Grace, RN and DT1 Vee Redding). The fifth panel member, a physician, Chief of Service (CDR Brian McAlary), played a unique role on the panel and represented both a management and an employee perspective.

The central element which emanated from the issue of working expectations was communication. This was the primary area of thought for the panel. Questions relating to the interwoven elements of authority/responsibility, organizational mechanisms for timely feedback, and organizational receptivity to creative thought and ingenuity were asked of the panel.

The success of the panel discussion was in the diversity of the panel members, i.e., that panel members were selected from varying levels in the organizational structure representing civilian, military, officer, enlisted, manager and employee thoughts and viewpoints. And in the reception of the panel by the audience.

Panel discussions can have many formats and subsequent criticisms revolved around format. Attendees seemed to prefer a more open discussion with more attendee interaction, i.e., soliciting attendee questions after each question presented to the panel. This particular format allowed us to bring to the attention of the audience a variety of viewpoints with regard to the complexities of management/employee communications and expectations.

Evaluation Mechanism

It was decided at the outset that it would be prudent to objectively

evaluate the net worth of the program from the participant's standpoint, as well as to provide the presentors with feedback on their lectures. Therefore, an evaluation tool was developed and response solicited at the conclusion of the seminar. Additionally, it was agreed that in view of the fact that several practical management tools had been provided, it would be interesting to procure a follow-up evaluation 45-60 days subsequent to the program to determine if any of the presented concepts had in fact been fruitful to those in attendance. In this way the team could determine what changes, if any, occurred in the participants' daily modus operandi because of their participation. The results of the first evaluation at the close of the seminar were enlightening, with both positive input and poignant suggestions. It is hoped that the follow-up survey will also be encouraging. The responses indicated that the presented topics were pertinent to the participants' daily concerns and that the time spent in attendance was worthwhile.

The follow-up survey showed apathy on the part of the participants in view of the fact that of the 70 evaluations sent out, 10% were returned. Of the 10%, all were very supportive of future such programs.

From the Top

HRD has been shown to be necessary and valuable. The results of this program further indicate that it is desired by managers, and this experience proved that it does not have to be expensive. The success or failure of conducting an in-house seminar with internal assets will be a function of the effort and polish of the presentors and the captivated interest of the audience. Ultimately, however, the success of such an

endeavor as just described will depend upon the degree of support from top management. All attempts to solicit enthusiasm from middle management will be ineffective without a firm commitment from the top echelons. Command support for this program was 100%. Both the commanding officer and director of administrative services made time to attend the entire program and their contributions were well received by the group. Furthermore, the attendees were representative of almost all the corps at the medical center: Medical Service Corps, Medical Corps, Nurse Corps, Judge Advocate General Corps, as well as the chief petty officers and civilians.

The body of knowledge in management has become immense. It is incumbent upon the organization to maintain a managerial awareness of the state of the art. This is one method of accomplishing such a goal at low cost, using in-house resources to provide current management topics to all supervisory levels.

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Preventive Family Psychiatry Overseas: Experience with a Parenting and Child Development Course

LCDR Ralph J. Gemelli, MC, USN

As a career Navy psychiatrist trained in both child and adult psychiatry, I was eager to practice family psychiatry when I arrived overseas for the first time in August 1977 at U.S. Naval Regional Medical Center, Guam. Being the only psychiatrist on Guam with a staff of one enlisted Navy psychiatric technician and servicing a large naval community, a large Air Force base, and smaller Coast Guard, Marine, and Army installations, it came as no surprise that there was an immense demand for psychiatric services.

Our two pediatricians at the Naval Regional Medical Center were eager to bring referring children, adolescents, and their families for psychiatric evaluation. Until this time, referrals for child evaluations were made to the local civilian hospital Child Guidance Clinic which functioned without the services of a child psychiatrist or child psychologist. Consequently, a

"child behavioral clinic" was begun in which I was able to see several children and their parents for evaluations each week. Almost immediately, however, the several hours of available weekly appointments that I could devote to child and adolescent psychiatric evaluations were filled. The wait for a "routine" appointment in the clinic became, at the least, one month.

Not surprisingly, many children needed either short- or long-term psychotherapy with active parental involvement. Unable to provide other than minimal therapy time, I was given permission to provide clinical supervision to the civilian staff at the local hospital Child Guidance Clinic who were conducting psychotherapy with those military families referred to them by me. My involvement with Guam's Child Guidance Clinic produced more requests for assistance in evaluating troubled Guamanian children and adolescents than I could possibly provide.

After a few months of seeing children identified as needing psychiatric help, it became evident that many children were presented with

psychopathology that could be closely linked to either faulty parenting practices. Either that or the psychopathology could have been prevented if the child's parents had identified the early seeds of the problem and taken immediate "appropriate" action in their home. Many parents were young and in need of guidance in parenting they would ordinarily seek from their own parents or other close family members if they were back in the United States. It seemed evident that there was a need in our military community for a course dealing with child development, parenting techniques, and identifying and appropriately responding to the early seeds of child psychopathology. I needed parents to help me in preventing and dealing with child psychopathology. I also felt that it would be useful to "show" myself to parents to help dispel some of the myths surrounding the military child psychiatrist. There were many children I had already seen for "emergency" evaluation where it was evident that the parents avoided coming in until a crisis erupted because of feelings of

From the Psychiatry Service, National Naval Medical Center, Bethesda, Md. 20014.

anxiety or embarrassment associated with the thought of presenting their child or adolescent to a military psychiatrist.

Planning for the Course

Mention of a possible parenting course brought enthusiastic support from both our pediatric staff and the commanding officer. Consequently, an ambitious seven-week, one evening per week, "Parenting and General Issues of Child Development" series of seminars were planned (Table 1). Major concerns in planning the course were the *length* (Would people give up one evening per week for seven weeks?) and the *content* of each seminar. The content of the course could not be too "professional." This would tend to make parents feel that childhood development was *too complex* and many might return home feeling less able to handle their *own* problems in their *own* style. The course would not be a success if it produced a fourfold increase in requests for child evaluations! On the other hand, the impression that raising children was not complex was not to be fostered either. The goal was to give parents some new and useful concepts to begin incorporating *together* in their own style and respecting their unique cultural parenting heritage. *Flexibility* and *reassessing concepts* of *child rearing* were to be stressed instead of presenting the "right way of raising children."

The course was well publicized through military communication channels. The schedule of seminars and a description of the objectives of the course were printed in the military community newspaper.

TABLE 1. General Issues of Parenting and Childhood Development

Monday Evenings (7:30 PM - 9:00 PM) Naval Regional Medical Center Auditorium Presented by: LCDR Ralph Gemelli, MC, USN		
Session No.	Date	Topic
1	30 Jan 1978	Parenthood and healthy and unhealthy reasons to have a child; changing roles of mother and father in the military family. Pregnancy , Birth, and the delivery experience; some early "seeds" of child abuse. The role of Grand-parents .
2	06 Feb 1978	Infancy (Age Birth - 3 Years) and issues of mothering, fathering and modeling; speech development, the need to handle frustration, body control development; Basic trust.
3	13 Feb 1978	Early Childhood (Age 3 - 6 Years) and Rules of Discipline and Rules of Punishment; sexual identity; issues of lying, stealing, and masturbation; the importance of play.
4	20 Feb 1978	Late Childhood (Age 8 - 11 Years) and the need to learn, compete and compare; school failure, early drug use, and delinquency; sex education.
5	27 Feb 1978	Early Adolescence (Age 12 - 15 Years) and Adolescent Rebellion, Sexuality, and Rejection of parents.
6	06 Mar 1978	Late Adolescence (Age 15 - 18 Years) and the need to become independent; drugs, sexual promiscuity, runaway, and emotional withdrawal.
7	13 Mar 1978	Child Abuse : Causes, types of, recognition, and prevention.

People were encouraged to attend as many of the sessions as possible because basic themes of parenting and child development would be developed during the course of the seminars. Because we expected many parents would be unable to attend all the seminars or would select only those seminars dealing with their current child's age, the subject matter of each seminar was planned to stand on its own.

The seminars were open to all active duty, retired single and married personnel and their dependent spouses, and all interested adults eligible for treatment at the Naval Regional Medical Center. Children and adolescents were not permitted to attend. It was decided not to formally invite civilian parents in the Guamanian community because it was not possible to predict how many would attend from our military community. Invitations were personally extended, however, to those civilians providing varied professional services to military and civilian children and adolescents on Guam.

Response of Our Military Community

The seven-week course was conducted on consecutive Monday evenings in the auditorium of the Naval Regional Medical Center. The format comprised a 45-minute presentation, a short coffee break, and a final 30-minute question, answer and discussion period. Each presentation, except the first, was aided by slides that outlined the evening's subject matter.

To our delight, the turnout was excellent, more than exceeding our initial expectations. The average total attendance per evening for the seven-evening course was 177 adults. Eighty-five adults attended the entire course. As noted in Table 2, the highest turnout was for the

TABLE 2. Attendance

Seminar	Total	Seminar	Total
1	225	5	155
2	219	6	110
3	230	7	115
4	188		
Average Attendance: 177			

seminars on pregnancy, early infancy, and the seminar that dealt with the principles of discipline and proper methods of punishment (Table 3). These particular seminars were most popular probably because of the large numbers of young childbearing-age parents in our military community. Interestingly, we expected a larger turnout for the two seminars dealing with adolescence and the last seminar on child abuse. The reasons for the lower attendance for these last three seminars were likely due to: (1) less parents in our military community having teenage children; (2) the expected attrition for a course spanning seven weeks; and (3) the nature of the subject matter. Many parents dealing with the adolescent issues and problems discussed in these seminars find it hard to hear about and therefore acknowledge

TABLE 3. Rules of Punishment

1. Explained before and end "appropriately."
2. Postponement . . . reasons for techniques
3. Let punishment fit the "crime."
4. Add on **not** take away.
5. Apology after punishment.
6. Once done—then **forgotten**.

that these problems exist in *their* home, e.g., promiscuity, drug use, or school delinquency. In like manner, all parents, not only those abusing their children, find it hard to hear about child abuse especially in being reminded such abuse exists in their own military community.

Civilian turnout was encouraging and averaged about 45 adults per seminar. Those invited civilian professionals who attended represented Public Health and Social Services staff for the Government of Guam, Speech and Hearing Clinic staff, Child Protective Services staff, Vocational Rehabilitation staff, School Guidance Counselors and teachers, Juvenile Justice staff, University of Guam teaching staff, and the staff of the Child and Adult Mental Health Center at the local civilian hospital.

Course Content

The focus of the entire seven-week experience was to give parents, prospective parents, and people interested in promoting normal child development, practical and useful information in helping them be *more effective* parents and adults in enhancing the healthy development of children. The point of view emphasized in all discussions was that parents are given *specific tasks of parenting* at each stage in their child's growth. Each parental task is a result of and stimulated by *specific age dependent tasks* all children must master in order to develop normally. For example, in the third seminar dealing with the 3- to 6-year-old child, the child's age specific psychological and social tasks were discussed in how these tasks stimulated specific psychological and social tasks for their parents to master (Table 4).

An important part of each seminar dealt with universal problems and issues pertinent to the specific

TABLE 4.
3 - 6 Years - Developmental Tasks

Sexual Identity - final choice
Conscience - becomes internal
Language - symbolic growth
Isolated - to social play
Play - "Passive to Active"
Anxiety mastered

period of childhood being discussed. These topics included discussions about the common problems of temper tantrums (Table 5), lying, cheating, stealing, food rejection, sibling rivalry, drug and alcohol abuse, promiscuity, school failure and delinquency. Although practical suggestions were offered in dealing with these behaviors, the main focus was on discussing their different etiologies so that parents could recognize the cause of the particular problem. Hopefully then, by dealing directly with this cause, they would be better equipped to help the child abandon the deviant behavior.

Issues such as the prevention of homosexuality, concern about the effect of exposure of children to

adult homosexuals, teenage experimentation with marijuana, teenage sex education and sexual intimacy, nudity in the home, and the effect on children of the recent role reversal "revolution" among men and women were all topics engendering considerable interest as evidenced by some very lively discussion periods.

In each seminar, more time could have been devoted to presenting and discussing practically every topic covered. It was an ambitious undertaking to adequately cover all that was listed in the seminar schedule. In each forty-five minute presentation, I often had to say very little about topics I wanted to say very much more about. However, I decided, in this my first experience with such a course, to cover many important issues even if only a short period of time could be devoted to each. Only after giving this course several times will I and other military psychiatrists learn what issues among the parents produce the most interest in different military communities, e.g., overseas, small installations in the United States, etc. Also, in larger military medical installations with a larger Psychiatry Service, a course such as this one could become a valuable guide

in determining what topics produced the greatest interest. Such topics, for example, would then be dealt with in individually scheduled seminars, in a parent weekend workshop, etc.

Goals of the Course

An overseas assignment confronts each member of the military family with similar tasks. These include the loss of leaving families, friends and the conveniences in the States; adapting to a new military community overseas; and having to enter and adjust to the foreign society that "surrounds" them. The challenge for military parents is a most difficult one. They must assist each other in order to optimally adjust to these new tasks and pressures. Simultaneously, they must help their children not only to deal with the inevitable problems and developmental anxieties that come with growing older, but also help them cope with the anxieties concomitant with experiencing a foreign culture.

The principal goal of this course was to give parents traditional concepts of child rearing and development and not to present a "cook-book" for understanding and disciplining their children. The more knowledge parents have about traditional issues of child development and standard parenting techniques, the better able they will be in choosing their own unique style of being effective parents and in enhancing their child's development during their period overseas.

Another goal of the course was to bring our parents together for a common experience involving family life. The course brought together parents who were dealing with children of the same age. Not only did this coming together foster a feeling of mutual support but it enabled parents to find out what help was

TABLE 5. Temper Tantrums

No audience	No performance
Label it	Then "ignore" it
Hold child	No hurting allowed
	No destroying allowed

Causes:

1. Overstimulation . . . Very young child
2. Anger against self . . . Discharge
3. Anxiety Episode in "Phobic" Child
4. Constant threats or inconsistent parenting
5. Illness or retardation

available to them in the military and foreign community. Parents learned how to assist other parents in obtaining help. Our parents found out how to pursue a child psychiatric evaluation, and also by meeting many of the civilian professionals attending the course, found out about services available in the Guamanian community such as Speech and Hearing, Vocational Rehabilitation, Special Education, and the Child Protective Agency.

Discussion

The military psychiatrist has an increasingly difficult task in providing clinical services to his military community. Because of the sheer volume of demands made on his time, it is difficult to redirect some of his time into activities of a preventive nature. A course such as this is one solution to this problem. By educating people in identifying situations fostering the development of mental illness in their families and offering methods of correcting these situations, he practices preventive family psychiatry and taps into the emotional strengths that people will draw upon in attempting to decrease psychiatric illness in their military community.

Few military psychiatrists are conducting this type of course. One reason has been already mentioned, i.e., the psychiatrist in the military community has little if any "spare" time. However, I believe this to be a minor resistance in explaining why more parenting and child development courses are not being taught.

The major resistance is that most of our military psychiatrists are adult trained and consequently many feel the child psychiatry portion of their training has not adequately prepared them to conduct a course on parenting and child development. Most military adult

psychiatry residencies do not provide any experience for residents in being active participants in the planning and presenting of at least some portion of a parenting and child development course. This experience should be provided sometime during the later part of residency training and coordinated by our child trained military psychiatrists. However, even though current adult psychiatrists may not have the breadth of knowledge and clinical experience to draw upon that a child trained psychiatrist possesses, they nevertheless have had enough training in child development and child psychopathology to present such a course. One aid would be to enlist the contributions of military psychologists, pediatricians, and nurses in the planning and presenting of any parenting and child development course.

In an effort to assist interested adults as well as child psychiatrists in conducting such a course, reproductions of the 60 slides prepared for this course can be made available. The slides form an outline for the entire course and are expanded upon by a bibliography and descriptive syllabus. Any psychiatrist interested in the syllabus and associated Kodachrome slides should write to me. I am presently pursuing the possibility of BUMED funding for the cost of the slides for our naval psychiatrists.

I feel that the enthusiastic turnout we received in response to our course would undoubtedly be repeated at other military installations. The parents were interested in learning more about their children and becoming more effective, involved parents. They welcomed the opportunity to come together to discuss traditional issues such as the psychology of pregnancy, and methods of discipline, but were also eager to deal with contemporary concerns such as sexual identity

confusion, homosexuality, and marijuana.

One of the first concepts taught all psychiatrists during their initial exposure to child psychiatry is that children do not seek help for their symptoms of emotional illness. The help must be sought by their parents and your therapeutic alliance is always with the parents. Our military dependent children and adolescents will never come together to write a letter to the Surgeon General asking for more mental health professionals to teach their parents how to be more effective in promoting their children's mental health and optimal development. Our children being abused emotionally, physically, and sexually suffer silently, or act out their rage at their parents by becoming our school failures, drug abusers, and run-aways. Much has been done in the military, especially in the Navy, to identify these children of abuse and help them and their parents. Many times the emotional scars are too ingrained and long periods of psychiatric and other professional treatment is needed with often very guarded prognosis for the eventual readjustment of these families into our military communities. We need to focus on early prevention and our military psychiatrists must take the lead in educating the members of our military communities in concepts of healthy child development and effective parenting.

Our course was given at a fairly isolated duty station with a high proportion of dependents, especially children. And although an overseas community would probably be viewed as a fertile environment for a course that helps parents cope better with their child's behavior, it is important to stress that our larger medical centers in all branches of military service serve populations that are also in need of courses in parenting and child development.

Effects of Topically Applied Fluorides on Cavity Preparations

LT Robert E. McArthur, DC, USNR

This paper explores through a literature review the extended uses of topical fluorides in the field of dentistry. The validity of maintaining an effective concentration of fluoride in water (1.0 - 1.2 ppm) to reduce tooth decay has been well documented with studies completed in the 1940s and 1950s. In addition, conclusive *in vitro* and *in vivo* studies have proven the effectiveness of topical fluoride application to the enamel surfaces of teeth in the reduction of dental caries.

The use of fluorides has proven to be highly significant in the field of preventive dentistry. Most clinicians have certainly been exposed to the systemic and topical enamel applications of fluoride with resultant caries reduction. However, with the advent of highly sophisticated electron microscopic, electron diffraction, and microradiographic studies, research appears to be indicating additional beneficial results when this dental "panacea" is utilized in topical applications to exposed dentinal tubules, pulpal tissue, and cavity preparations.

Response of Pulpal Tissues to Topically Applied Fluorides

A review of the literature indicates that several earlier clinicians in the 1940s had considered the protective nature of fluorides when topically applied to dentin. Hoyt and Bibby (1) reported that the role of sodium fluoride had been established in its efficacy as a desensitizing agent for hypersensitive dentin. They observed clinically that this desensitization took place in a very short time—a matter of three to five minutes. Because the mechanism of the

desensitization was not understood at the time, several individuals began to clinically evaluate the results of topical fluoride applications to dentin. Studies by Barker (2), and Rovelstad and St. John (3) seemed to suggest that a lowered pulpal vitality was the probable means of desensitization. Because topical fluorides had been shown to remineralize enamel well, many believed that direct topical applications of fluorides to dentin could possibly aid the remineralization of dentin—virgin or carious. Therefore, the maintenance of pulpal vitality became the dominant question with topical fluoride application to exposed dentinal surfaces.

In 1949, Rovelstad and St. John (3) made a histologic study of the pulpal response to the application of NaF for five minutes to freshly cut dentin in 51 young teeth. The conclusions they drew from the study were: (1) that indeed NaF would effectively desensitize freshly cut dentin in occlusal preparations when applied topically; (2) histologic evidence proved there was a definite reaction of the young pulp in response to the irritation of the cutting of dentin. This reaction varied in severity according to the depth of the cutting; and (3) histologic evidence also proved the dental pulp is affected by the application of sodium fluoride to freshly cut dentin for a period of five minutes, in a manner differing from the reaction of the pulp to operative procedures. In all instances, they found the more severe pathologic

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condition associated with the five minute application of fluoride to dentin. The pulps in the area subtending the cavity showed vacuolization of the odontoblastic layer, leukocytic infiltration, hyperemia, and hemorrhage. As the time interval between treatment with fluoride and extraction increased from one hour to eight days, so did the severity of the pathologic condition of the pulp tissue.

This was an excellent study with control specimens utilized for comparison. Critical comments are: (1) the authors did not mention the concentration of NaF solution utilized; (2) an air water spray was not utilized for cooling purposes during cavity preparation; and (3) warmed gutta percha was utilized as a temporary filling material in the preps before the specimens were extracted.

The results of a study by Maurice and Schour (4) in 1956, however, began to indicate that a relationship existed between the severity of the pulpal response and the concentration of the fluoride in solution. Their work was based on the histologic study of maxillary molar preparations in 54 albino rats to which various NaF concentrations of 1%, 2%, 4%, and 30% were incorporated into a bland zinc oxide filling paste known as *Aquadont*. The findings in the teeth filled with the 1%, 2%, or 4% NaF or flooded with 4% NaF for five minutes were identical histologically to teeth filled with *Aquadont* alone. All of these specimens exhibited recovery after 32 days which was essentially complete with a reparative process consisting of a deposit of secondary dentin. In the teeth filled with *Aquadont* plus 30% NaF, severe alterations were observed and there was incomplete recovery and a greater deposition of secondary dentin.

In another study, Perreault, Massler, and Schour (5) found the application of 4% NaF to cavities for five to ten minutes in rat incisors produced no appreciable histologic damage to the pulp.

During the 1950s, sodium fluoride was the most frequently employed aqueous topical solution, but studies by Howell (6), Brudevold, et al (7), and Shannon and Hester (8) began to reveal that stan-
nous fluoride offered a higher degree of protection and acid resistance. Many began to suspect the effects of SnF₂ on the dentin and pulp.

In 1967, two research articles were published. One by Massler and Evans (9), indicated that applica-
tions of 10% SnF₂ solutions to the freshly cut dentin

of rat molars produced no immediate or long-term injurious reactions to the odontoblasts or pulp. This was true in shallow and in deep cavity preparations. This 10% SnF₂ solution was applied for 30 seconds. They found no significant effects when they applied SnF₂ directly to the pulp through small pulp exposures. All cavity preps were left exposed to the oral fluids without benefit of temporary filling materials before the rats were sacrificed at various time intervals. Interestingly enough, Massler and Evans found that the formation of bacterial plaques within the open dentinal cavities and the number of gram-positive streptococci within these plaques were significantly less in the fluoride-treated group than in the controls.

The same year Weiss and Wei (10) also found very little, if any, inflammation in pulpal tissues in human teeth when an aqueous 10% SnF₂ solution was applied to freshly prepared dentinal cavities in sound and carious lesions. No difference could be detected between the pulps of SnF₂ treated carious teeth and control caries lesions. In fact, postoperative radiographs showed an increase in radiodensity of SnF₂ treated carious teeth.

Additional favorable reports were published. In 1967, Andres, et al (11) reported no adverse pulpal effects after application of 10% and 30% SnF₂ solutions to deep cavity preparations in dog teeth. They even noted a decreased cellular response following the SnF₂ treatment.

In 1969, Weiss and Massler (12) completed an *in vivo* study of 87 young premolars to be removed for orthodontic reasons. Class V cavities were prepared and cotton pellets saturated with the following solutions were then sealed under fast setting ZOE cement for periods from one day to one month: SnF₂ 10%, NaF 2%, acidulated fluorophosphate 1.23%, distilled water, dry cotton pellets, and unoperated teeth were used as controls in contralateral teeth. Histologic examination showed no significant effects of any of these fluoride solutions on the underlying pulp, even when sealed into the cavity of one month. The cutting procedure itself, they noted, produced far more damage to the pulp under sharp line angles, especially when used dry, than did the fluoride solutions. The total or additive effect upon the pulp was considerably less than occurred under zinc phosphate and silicate cement fillings placed over one layer of copal resin varnish.

Brannstrom and Nyborg (13) in 1971 completed a study and found their results were inconsistent with those of Weiss and Massler. Their *in vivo* study consisted of an histologic evaluation of 50 pairs of teeth divided into three groups in which buccal cavities were prepared. These deep buccal cavities were prepared with water cooling by a method that in the authors' earlier studies had been found not to produce appreciable damage of the pulp. Group I received an 8% SnF2 30-second application with a contralateral control tooth. Group II received an 8% SnF2 5-minute application with a control. Group III received an 8% SnF2 5-minute application with the contralateral tooth receiving a 4% NaF 5-minute application. All cavities were filled with *Pharmatec* temporary filling material. All teeth were extracted after one week.

Histologic results indicated the thickness of the cavity floor in these teeth ranged from 0.07 to 0.20 mm. In Group II, a pulpal response of moderate inflammation to pulpal necrosis could be elicited. All other teeth with SnF2 and NaF applications and controls did not exhibit any inflammatory changes. They suggest the reason for the discrepant results between SnF2 and NaF may lie in the fluoride ion concentration which is about five times greater in 8% SnF2 than in 4% NaF. A contributing reason for the damage may be the acidity of the 8% SnF2 (pH2.6). However, earlier research indicates no local necrosis of the effect of acid cement on the pulp. Finally, Furseth and Mjor (14) in 1973 observed that a 2-minute application of 2% NaF in prepared cavities just prior to restoration had no adverse effect on the pulp.

These studies indicate that fluoride applied topically to cavity preparations in moderate concentrations for short periods of time is not harmful to the pulpal tissues, but caution should be exercised when high concentrations are used for long periods.

Effects of Topical Fluorides on Dentin

Much has been written on fluoride's beneficial effects on enamel solubility resistance. However, since dentin and enamel differ markedly in their organic and inorganic composition, the mechanism by which fluorides reduce dentin solubility would be expected to be different than in enamel.

Buonocore (1961) (15) found that the rate of dissolution of enamel in various acids was dependent on the kind of acid used, while the rate of dentin dissolution was pH dependent. Dentin dissolves faster than enamel at a pH of 5.5, while the order is reversed at pH 3.5. If the organic matter is removed prior to decalcification, dentin dissolves faster than enamel, regardless of the pH.

In 1967, Wei and Massler (16) investigated the effect of 2% sodium and 10% SnF2 solutions on carious dentin, using radiographic and electron microscope techniques. Radiographs of SnF2-treated carious dentin showed a great increase in radiopacity compared with radiopacity before treatment. Radiopacity increased with time of immersion. No significant difference was seen between the electron micrographs of sections treated with NaF and of untreated sections of active carious lesions. The sections with SnF2 showed an electron-dense granular material that was deposited within the dentinal matrix and was especially dense in the peritubular zone. This indicates a remineralization that may have occurred as a result of chemical reaction between the residual hydroxyapatite in carious dentin and SnF2.

Wei, Kaqueler, and Massler (17) confirmed in their study in 1968 the hypothesis that demineralized carious dentin may be remineralized *in vitro*. Based on radiographic and microradiographic evidence, a 10% SnF2 solution appeared to remineralize carious dentin more rapidly than, and was superior to, other remineralizing solutions and calcifying solutions. Reduced straining of carious dentin with toluidine blue and orange G indicated increased resistance to dye penetration. Deposition of finely granular, electron-dense material in the dentinal matrix was seen with electron microscope. Also in 1968 Selvig (18) demonstrated that prepared dentin surfaces, treated with a 2% NaF solution, would reduce the acid solubility of both zones, but that the intertubular zone was now more readily dissolvable than the peritubular zone. He concluded the penetration of fluoride was primarily along the dentinal tubules. He further concluded that since current concepts of caries held its progress was primarily along the tubules, any treatment of normal dentin that would increase the resistance of the peritubular zone and the mineralized content of the tubules to dissolution by bacterial acids would, conceivably, retard the caries process.

Fluoride Effects on Recurrent Decay

With the results of Selvig's study in print, numerous investigators began to report a reduction in recurrent caries in humans and experimental animals following topical fluoride application.

Gross, Goldberg, and Loiselle (19) in a study involving topical fluoride application to Class V cavity preps in hamsters, discovered a 50% reduction in the occurrence of caries at the margin of the restorations in the fluoride-treated group as compared to the untreated control group.

Alexander, McDonald, Stookey (20) in 1969 reported a study in which they evaluated the effectiveness of a stable 30% SnF₂ solution on recurrent caries around the margins of amalgam restorations in 34 children. Children receiving the SnF₂ treatment experienced a 58.9% reduction in recurrent caries when compared to the control children. The children receiving the SnF₂ treatment showed a 60.7% and 46.7% reduction in recurrent caries in permanent and deciduous teeth respectively, when compared to the control children. This reduction in recurrent caries was attributed to the anticariogenic effect of the SnF₂ treatment. Recurrent caries around the margins of restorations appeared to depend on (1) the caries susceptibility of the adjacent tooth structure, (2) the extension of the cavity preparation, and (3) the condition of the amalgam-enamel margins.

Stannous Fluoride as an Indirect Pulp-Capping Material

Nordstrom, et al (21) in 1974, compared a 10% SnF₂ solution to the more conventional Ca(OH)₂ preparation in indirect pulp capping procedures in human deciduous and permanent teeth. The 10% SnF₂ treatment was applied for five minutes. The treatment period was 94 days. They found no significant difference between the failure rates of teeth treated by both means, (i.e. both were effective). However, the use of the SnF₂ had one advantage. That being, teeth treated with SnF₂ showed harder remineralized dentin and greater radiodensity than teeth treated with Ca(OH)₂. This evidence supports the hypothesis that SnF₂ produces remineralization of demineralized dentin *in vivo*. Stannous fluoride may react with residual hydroxyapatite in the

demineralized dentin to form Sn₃F₃PO₄. This study shows conclusively that SnF₂ is a good agent to use for indirect pulp capping procedures in that the vitality of the pulp is maintained, the carious process is arrested, remineralization of the demineralized dentin is promoted, and secondary dentin formation is stimulated.

Discussion

The dental profession has overwhelmingly accepted the utilization of fluorides for systemic and topical application for increased caries resistance of the enamel layer. However, for several decades, the profession has, in general, been reluctant to utilize topical fluorides on exposed dentinal and pulpal tissues due to the fear that topical fluorides would severely damage dentinal and pulpal tissues leading to the early demise and devitalization of teeth. In addition, although the profession could accept that fluorides could increase surface enamel remineralization, there were questions as to whether dentin would respond in the same fashion. Also, the practice of treating cavity preparations with aqueous fluorides prior to restoration has never been popular because of the time involved, as in the case of freshly mixing the solutions, and the expense.

Just as freshly erupted enamel is highly susceptible to caries, since it lacks the fluoride-rich protective layer that forms following exposure to oral fluids (Massler 1968) (22), so does freshly cut enamel and dentin of cavity preparations. Marginal leakage around dental restorations allows for bacteria and their toxic products to come in contact with these exposed susceptible surfaces to produce recurrent decay. Any safe means of reducing the dissolution of the susceptible surfaces would be most beneficial.

Conclusions

The literature presented here supports:

(1) that, aqueous topical fluorides applied to cavity preparation do *not* cause an irreversible pulpitis with subsequent necrosis of the pulp when moderate concentrations (10% or less) are applied to the preparation for short periods of time (less than five minutes). However, caution should be exercised when high concentrations are used for longer periods. Also, the preponderance of literature

suggests that topical fluorides are not irreversibly irritating to the pulp if applied over dentin, however, the effect of topical fluoride over an exposure is not completely known. Therefore, the clinician should avoid topical application to dentin where there is any likelihood of exposure.

(2) that, topical fluorides particularly SnF₂ as opposed to NaF when applied to cavity preparations has a beneficial effect upon the dentin in that, carious and virgin dentin is remineralized with a resultant decrease in acid solubility. Conceivably, this infers that the caries process should therefore be retarded in dentin.

(3) that, topical fluorides applied to cavity preparations before alloy or prosthetic placement does significantly reduce recurrent caries around the margins of the restoration.

(4) that SnF₂ can be utilized as an effective indirect pulp capping material with greater radiopacity and harder remineralized dentin when compared to Ca(OH)₂ without pulp devitalization.

The literature appears to suggest that SnF₂ is the topical fluoride of choice. Of course much research continues in this field. Shannon (23) has contributed significantly to this area of dentistry. He has shown with numerous studies that smaller concentrations of fluorides (0.4%), in particular with SnF₂, are really all that is needed to produce beneficial results, i.e. enamel and dentin solubility reduction by acids. Indeed his group has developed stable gel forms of fluorides for topical application to increase the shelf-life and the ease of utilization of fluorides, and to decrease their expense.

The dental profession is strongly encouraged to re-evaluate these beneficial effects of topical fluorides to cavity preparations. The literature demonstrates that the fears and concerns of the dental profession are unfounded scientifically with regard to the use of fluorides on dentinal and pulpal tissues. Therefore, our patients could and should be receiving topical fluoride applications on cavity preps during restorative treatment to derive the benefits enumerated above in attempts to reduce the potential and incidence of recurrent decay.

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Nutrition: New Component in Patient Education

LT Wendy L. Harrison, MSC, USN

As current medical attention focuses on preventive health care to counteract disease and minimize treatment, interest in nutrition soars. Studies point to both over- and under-nutrition as risk factors in disease development (7,9,12,14,22), with consequent government sponsorship of nutrition programs (1,4,5,11) and interest in a National Nutrition Policy (2,6,18). Increasingly, physicians are looking for ways to blend the physical properties of food metabolism with the social sciences to yield consistent dietary changes. Yet one almost unrecognized source of existing government funding for nutrition education is the military dietitian. The military dietitian serves clientele who usually have an adequate food supply, represent various geographic backgrounds, and are frequently centralized in base housing, facilitating dissemination of nutrition information to the wife or family "gatekeeper (16)."

To pinpoint naval dietetic services, a questionnaire was mailed to each of the 31 registered dietitians on the "Hospital Food Service Program Officers" roster (8). Those invited represented 20 naval installations and a population which was 71% female and 29% male. Thirteen percent were listed as ensigns, 22% as junior grade lieutenants, 55% as full lieutenants, and 10% as lieutenant commanders or above. Eleven persons were shown to work either as the sole dietitian or in a joint Food Service Officer/Registered Dietitian billet.

Results

Of those invited, 17 (54%) returned the completed questionnaire and two unsolicited responses were received from civilian dietitians also working at naval facilities. The average length of naval service per respondent (civilian excluded) was 6.9 years with

a range from three to 18½ years; some responses include Navy-sponsored school or enlisted service. Several internships and geographic locations were represented, along with five persons educated at Ohio State University under the Naval Enlisted Dietetic Education Program (NEDEP). College majors concentrated on the nutritional sciences and general dietetics versus food service administration or business. In addition, 31% of the respondents have a master's degree and 21% are currently pursuing a graduate diploma.

Ninety-five percent (18) of the responding facilities have a "Nutrition Clinic" for outpatient care and 67% of these require appointments. A physician's consultation request is required by 83% of the respondents although some staff, walk-in, and weight reduction patients are excepted. The majority of dietitians spend 15 minutes to an hour on initial instructions depending upon the type of diet and whether an individualized or preprinted form is used. The nutritionist's perception of patient motivation also undoubtedly affects length of instruction as half the respondents felt only one in four patients requests dietary advice. Routine nutritional follow-up is provided by 53% of the dietitians with an average return rate among weight reduction patients of 80%. The impetus for this return may be the current stress upon weight reduction by the Armed Forces (13).

All respondents use the American Diabetes Association's "Exchange Lists" (3,10) for their weight reduction and diabetic patients. Twenty-six percent have changed to the new system, featuring fat modifications, and most anticipate conversion within the next year. Two respondents stated they plan to implement the new system for diabetics, but find it too confusing for weight reduction. Exercise, in the form of measured walking, aerobics, and behavior modification, is routinely discussed in relation to obesity, but only mentioned by 21% of the respondents to diabetics. The educational techniques are supple-

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mented by anthropometric measurements, most notably height (84%) and weight (95%). Rarely are any other measurements taken directly by the nutritionist, although one respondent reported routine referral of hypertensive patients for blood pressure checks and is hoping to incorporate this measurement into usual nutrition statistics. Ten dietitians indicated they customarily discuss laboratory values with their patients, 26% speak of urine testing, and one briefs on dietary preparation for blood work.

Half the respondents make referrals to other clinics within their facilities and 32% report sending patients to community agencies such as the Diabetes Association, Weight Watchers, and Overeaters Anonymous. Further community resources include Alcoholics Anonymous, ALAnon, the Cancer Society, County Board of Health, Food Stamp Program, Heart Association, Navy Relief, Public Health Nutritionists, TOPs (Take Off Pounds Sensibly), and WIC (Supplemental Feeding Program for Women, Infants, and Children). Fifty-three percent of the dietitians are also part of prenatal programs either through individual consultation, prepared parent-hood classes, or other weekly group sessions. Most respondents (68% have advertised their nutrition services in base newspapers and one person regularly writes nutrition articles. Approximately half the respondents conduct general nutrition education to base organizations, including aeronautical attachments and ship crews. Community liaison is maintained through volunteered services to off base

scouting troops, churches, schools, clubs, and local dietetic organizations.

Inpatients are usually seen as a result of the Physician Consultation Request Form (SF 513) as only 16% of respondents routinely accompany the physicians on ward rounds. However, one respondent works as part of a nutritional assessment team involving total parenteral nutrition and four others serve on patient care audit committees. Although no individual facilities have professional standards review of nutrition services, response to establishing Navywide criteria was favored by 75% of the participants. Dietitians subjective assessment of working relationships with other departments are shown in Table I. One respondent additionally listed the psychology department as an area with which good liaison is maintained.

Discussion

The variety of nutrition areas pursued by the responding dietitians reflect awareness of their changing role within the medical spectrum. No longer confined to a small basement office circling menus, they serve as adjuncts to other health care practitioners and as patient educators. Because of this new role as "fact interpreter," dietitians recognize the need for more individualized instruction time, organized follow-up, and active involvement of the patient in his own care. All of these factors make the last-minute-diet-consult and the "stop by and

TABLE I. Dietitian Working Relationships with Other Medical Services

	Poor	Fair	Average	Very Good	Excellent	Never Deal With
Laboratory	0	1	4	5	2	7
Radiation Therapy	0	1	4	2	1	11
Pharmacy	0	0	2	9	7	1
Data Processing	0	0	5	5	2	7
Physical Therapy	0	0	1	7	7	4
Occupational Therapy	0	0	1	4	0	13
Nursing Service	0	0	3	10	6	0
Medical Officers	0	0	6	8	5	0
Surgical Officers	0	0	7	7	3	2
Red Cross	0	0	5	3	5	6
Local Civilian Dietitians	0	0	3	7	3	6

just pick up a diet" approach of some health practitioners outmoded and naive. As Kaufman points out, "... dietary treatment is introduced to many patients in the form of a perfunctory statement or printed meal plan that bears little or no resemblance to their life-long pattern of eating (20)." As several studies indicate (15,21,23,24,25,26), the time honored Exchange Lists, basis for nearly every drug company diet handout, are difficult for patients to comprehend without instruction. Verifying this, Holland found a higher proportion of diabetics following their diet when instructed in its use. She concludes the results implicate the instructor-patient relationship as an important factor in motivating the diabetic patient to adhere to nutritional suggestions (19). Ginther further suggests that many disappointing actions on the part of patients may be "... honest and innocent actions taken on the basis of misunderstandings, revealing incomplete concepts (17)." Certainly motivation is a factor in diet change, but no patient should be unsuccessful simply because of "incomplete concepts." The naval dietitians responding to the survey appear to be trying to improve their quality of inpatient care while also reaching the naval community at large with preventive nutrition and developing more precise tools for accomplishing these tasks. Rather than asking patients how they like their meat cooked, professional time now targets on teaching the patient how to cook his food at home, educating him as to his diet's rationale, and developing materials to do so efficiently. Use of auxiliary personnel, such as dietetic assistants and technicians* to facilitate inpatient care may prove more cost- and patient-effective in routine hospital kitchen management. Dietitian time is then freed for patient education, exploration of community supplementary resources, and increased continuity of nutritional care.

Summary

A survey was conducted among the active duty dietitians in the United States Navy. Results indicate many have graduate degrees and are taking expanding roles in the medical setting. Future studies

should include data from civilian dietitians in naval facilities and also monitor the efficiency of adjunctive food service personnel in routine patient care.

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*Dietetic Assistant: One year post- high school curriculum with examination. Approved by American Dietetic Association.
Dietetic Technician: Two year program leading to associate degree from junior college. Approved by American Dietetic Association.

NATIONAL ALCOHOLISM FORUM . . . The Annual Conference of the National Council on Alcoholism will be held at the Sheraton Park Hotel in Washington, D.C. Beginning on 27 April 1979 and continuing through 2 May 1979, the Conference will feature speakers and paper presentations from throughout North America. The advanced registration deadline is 6 April 1979. Additional information can be obtained by writing Forum Coordinator, National Council on Alcoholism, Inc., 733 Third Avenue, Suite 1405, New York, N.Y. 10017.

BIOMEDICAL RESEARCH PROJECTIONS . . .

With the turn of the century only 20 years distant, the Naval Medical Research and Development Command has projected several major breakthroughs in biomedical research will occur by 1999 due to current Navy programs.

They include:

1. Development of a single injection malaria vaccine that will give complete sustained protection to combat forces.
2. Development of a single agent defense against multiple mission aborting virus illnesses (Interferon).
3. Development of cheap, readily available artificial blood to completely eliminate need for blood banking in combat areas.
4. Vaccine against dental caries organisms to eliminate need for dental profession except for cosmetic and reconstructive surgery.
5. Protective strategies against genetic engineering leading to development of alien biological warfare agents.
6. Genetic manipulation leading to elimination of genetic diseases such as sickle cell anemia.
7. Development of an immediate response infectious disease diagnosis capability.
8. Development of accurate, quantitative prediction models for:
 - Impact injury
 - World-wide infectious disease
 - Cold injury
 - Role of low level multi-environmental hazards in

causing and aggravating diseases of long latent periods.

9. Development of a casualty evacuation system that does not require skilled physician participation until delivery to tertiary health care echelon. (By use of a dedicated communications network.)

10. Pharmacological repair of noise related hearing damage.

CHAMPUS HANDBOOK BEING DISTRIBUTED

. . . A mass printing of the CHAMPUS Handbook for Beneficiaries has been completed and the initial steps have been taken to place it in Service distribution channels, according to DOD officials.

The officials note that it will be several weeks before the 92-page booklet will be available through CHAMPUS Advisors/Health Benefits Advisors, CHAMPUS Contractors, and OCHAMPUS. They add that copies are being mailed to retiree families.

The handbook summarizes who is eligible for CHAMPUS benefits, the extent of benefits, circumstances under which the benefits are available, how to claim benefits, and other pertinent information about the entire program.

A limited quantity of the publication was distributed last summer to selected individuals who were asked to evaluate its readability and content. CHAMPUS officials anticipate that every family which is eligible for the program will receive a copy of the current printing.

DIABETIC NEUROPATHY PAMPHLETS AVAILABLE . . .

Navy Medical Department personnel can order a new pamphlet, "The Diabetic Neuropathies: A Scientific Guide for Health Practitioners," free of charge from the National Institute of Neurological and Communicative Disorders and Stroke (NINCDS). The pamphlet describes the four major types of diabetic neuropathy and summarizes current treatment methods. Write the Office of Scientific and Health Reports, NINCDS, National Institutes of Health, Bethesda, Md. 20014.

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